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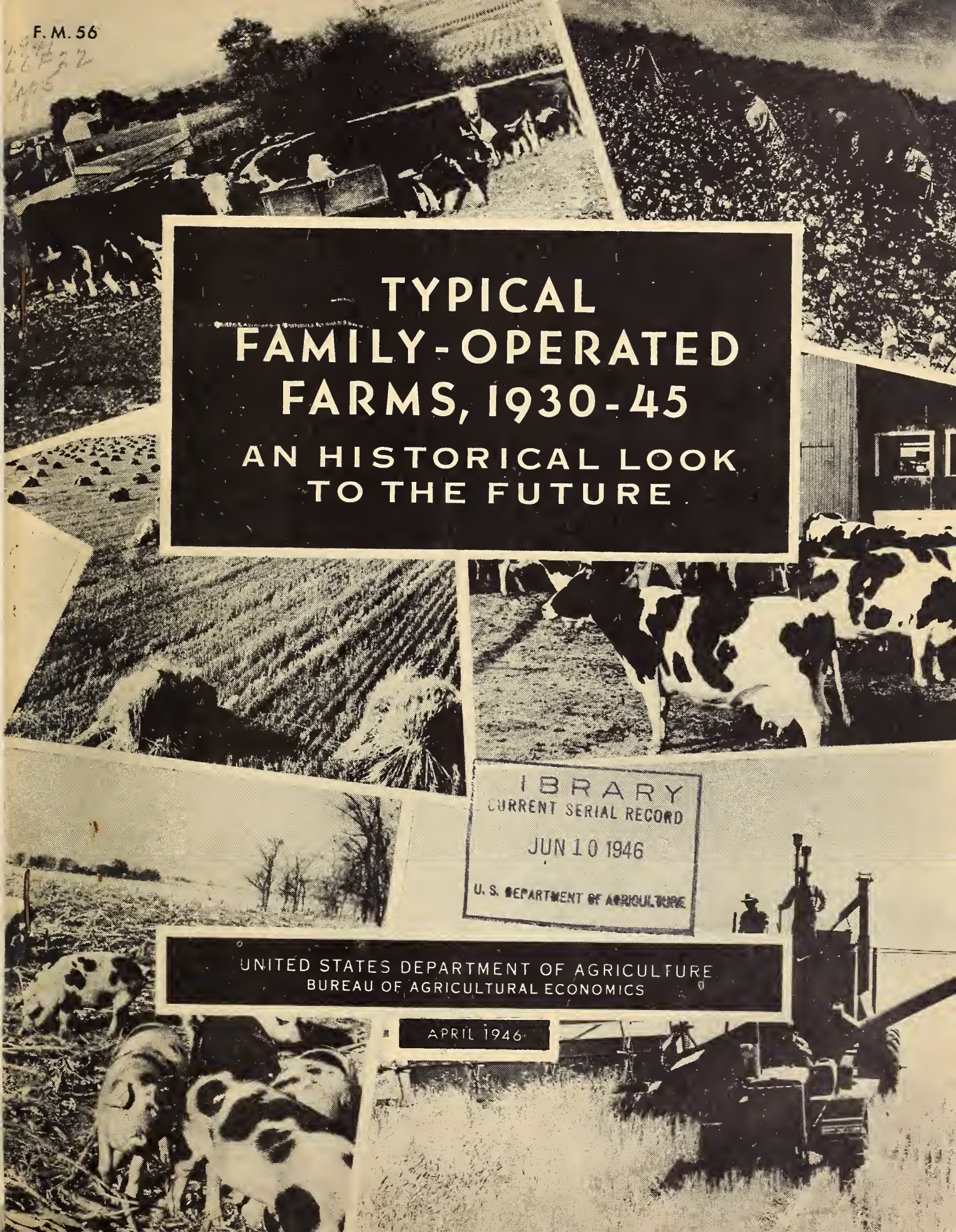
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**TYPICAL
 FAMILY-OPERATED
 FARMS, 1930-45
 AN HISTORICAL LOOK
 TO THE FUTURE**



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TYPICAL FAMILY-OPERATED FARMS, 1930-45

By Ronald W. Jones and Wylie D. Goodsell, Agricultural Economists

An Historical Look to the Future

Parity prices--parity income--price supports--producer subsidies--two-price system--conversion payments--production control--food allotments--social security--income insurance: such are the central issues of debate on the agricultural front. Each has its champions. Some seek advantages for special interests, some to promote the general welfare of both farmers and other groups alike, and still others whose motives are less clearly defined take sides on specific points. Even when the goal is agreed upon, opinion on the methods for attaining it is frequently divided depending, as in the case of the blind men who jointly inventoried the elephant, upon the point from which the situation is viewed. Opinions are expressed freely--a good old American custom. So it is that those charged with responsibility for guiding agricultural policies and programs face a difficult task in evaluating an ever increasing complex of proposals in light of current and prospective circumstances.

We anticipate the future in terms of past experience. As a basis for discussion of agricultural problems the series of reports of which this is a part contributes the annual cost and income experience from 1930 to 1945 of operators engaged in each of 14 major types of farming in the United States. Why have the variations in income, costs, and returns occurred? Why aren't operators of all types of farms equally well off? Why are costs of production higher in one area than in another? Information on these and other pressing questions will be found in the analysis of data on various aspects of the organization and operation of these typical family-operated farms; in the adjustments their operators have made in response to changing price-cost relationships, technological developments, and improved production practices; and in the effect of these adjustments and changing conditions on the economic well-being of the families who operate these farms.

Family-operated farms differ in size and productivity, and in perhaps as many other features as do the people on them. To provide a basis for talking about farms of a given type as a group, each of these "typical farms" is set up so that in every detail it is the average of all common-sized commercial family-operated farms of that type in the designated area. It would be just as difficult to find an actual farm of any of the types represented which fits exactly the measurements of the "typical farm" as to locate the "average man." For those concerned with the over-all aspects of farm organization, operation, costs, and income, however, this places no limitation upon the usefulness of these data.

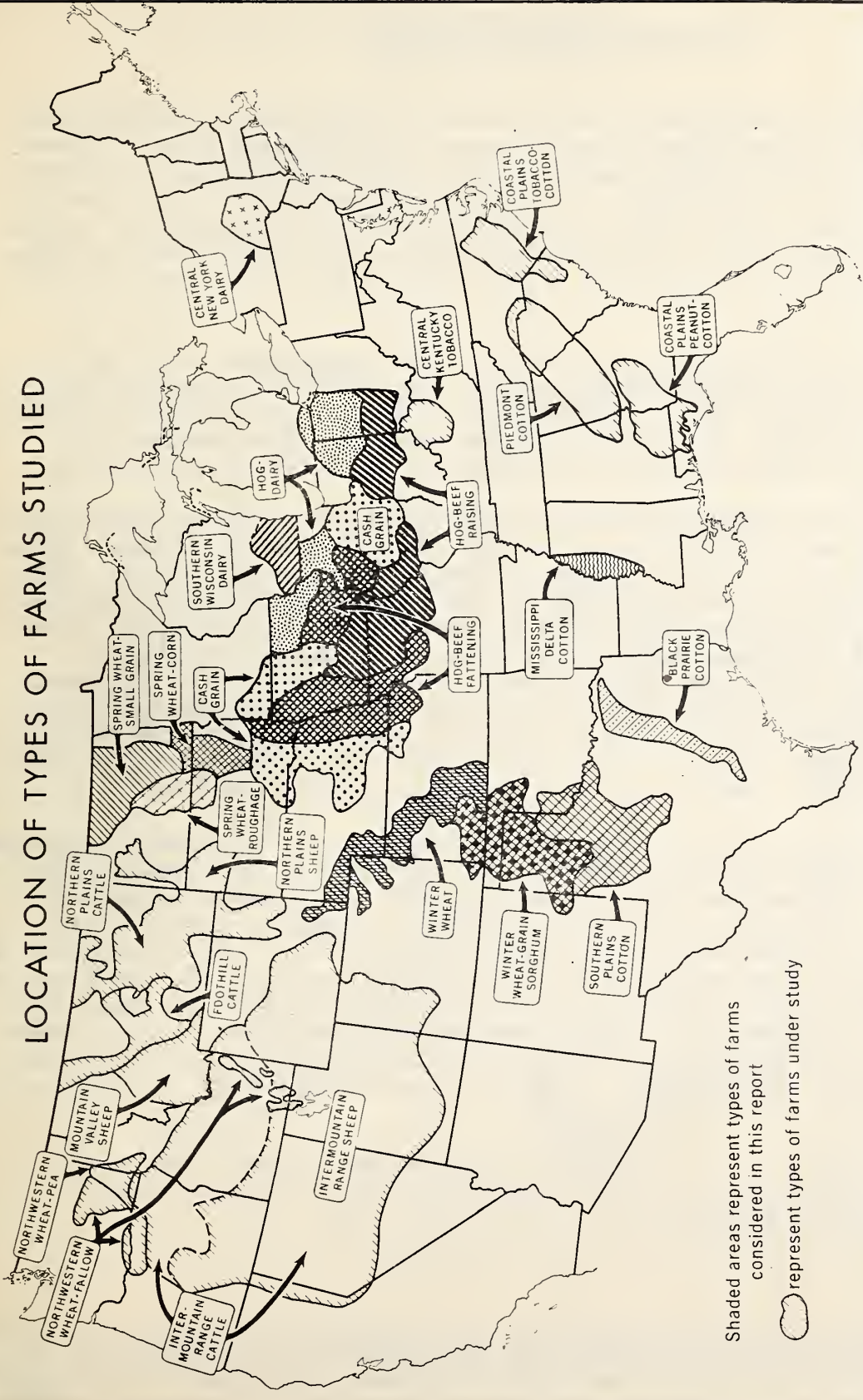
All of the farms included in calculating a particular typical farm set-up are of the same general type and in the same geographic area, but not all of the farms of that type in the area covered are included in the basis for deriving the typical farm. Some at the lower limits of the family operated group are too small to be considered full-time commercial farms. A few others are so much larger than the bulk of the farms in the area that they could not properly be called common-sized. These extremes represent a relatively small percentage of the farms of their respective type. By excluding them the group is made much more uniform. Plantations are considered to be a different kind of farm from the family-operated group and, in areas where they are important, are studied separately as large-scale farms.

One point should be kept firmly in mind when these typical farm data are used: each symbolizes conditions characteristic of a group of family-operated farms of a given type. Some farms are smaller than the typical and some are larger; some return larger incomes and some smaller ones, and so on for all the other details. But if we want to talk about a group of farms of a given type in an area where that type is the predominant one and if we want to compare one type of farm with another or one region with another, here is a basis for such comparisons.

These studies are designed as a continuing source of current information on these items. They are well suited as a proving ground for testing the effect of proposed programs and adjustments on the income and welfare of farm-operator families. The phase of these analyses that deals with farms of different sizes will, when completed, provide considerable insight into the distribution of income among operators of a given type of farm; into the comparative production costs; and into the efficiency with which the resources on farms of different sizes are used.

Studies have been completed for 14 types of farms and the results from those of 12 other types now in progress soon will be available to improve the geographic coverage (fig. 1). Similar studies of other types and locations will be undertaken as soon as time and facilities permit. As these typical farm analyses are based largely upon existing data they may be made relatively quickly and inexpensively.

LOCATION OF TYPES OF FARMS STUDIED



Shaded areas represent types of farms considered in this report
 ○ represent types of farms under study

Figure 1.- Studied have been completed for 14 types of farms and results from those of the 12 other types indicated will soon be available. It is planned that all analyses be kept current to provide a continuing source of information on various details of farm organization and operation. Other types of farms are found in these geographic areas, but in each case the type studied is the most important.

What About Farmer's Income?

Never before have business, labor, and industry groups so concerned themselves with prospects regarding farmers' income. And well they might. Farmers with money are customers. Their purchases are an important source of industrial employment and wages. Let's look. In 1932 the Nation's farmers spent about 328 million dollars for farm machinery, automobiles, and building materials. During 1942 they bought more than 2 billion dollars worth of the same items. Six times as many of these durable goods out of a cash farm income only $2\frac{1}{2}$ times that of 1932.

And many farm people are now aware that more city workers carry fuller dinner pails, and buy more and better clothing when business is good and employment and weekly earnings high. Business profits--factory pay rolls--farm income. These are the three legs of prosperity. Interdependent. Inseparable. Our economic structure cannot securely rest storklike, supported by only one leg.

Turning to the more specific, two very significant facts are evident from figure 2 showing the annual earnings from 1930-45 of families operating 14 important types of farms. 1/ First, they all follow the same general pattern. This pattern resembles too closely the trends in business income, wages and salaries, and industrial activity over this period to be considered a coincidence. We may then be sure that the future income and welfare of any particular group of farmers depends to a large extent upon the level of nonagricultural employment and income. There is nothing in full employment, however, that will eliminate the weather risk from wheat farming in the Great Plains, or smooth out the hog cycle, or bring cotton production back in line with consumption quickly enough to avoid real hardship. Problems such as these require special handling.

Second, and far more important in many respects, are the normal differences in the level of income of farm families in various parts of the United States. These differences stem from conditions peculiar to kinds of products, methods of production, and geographic areas. They are little affected by circumstances favoring a general improvement in the level of farm income. Even disregarding the human-welfare aspect (and who wants to) there are very good reasons for attacking the problem of low family earnings. Farm families with only \$500 to spend don't buy very many washing machines, radios, refrigerators, and other durable consumer goods, which are the backbone of a stable industrial economy. And four families, each with \$500, buy less than half as many of these things as one family whose net income is \$2,000.

But net income is an end product. Policies and programs aimed toward improving farmers' earnings must deal primarily with its component parts--production, prices, and costs.

1/ Operator's net farm income is what the farm operator and his family get for the use of their labor, capital, and land after paying current operating expenses, rent, and interest on the mortgage debt and taking account of changes in inventories.

FARM EARNINGS

OPERATOR'S NET FARM INCOME, TYPICAL FAMILY-OPERATED
FARMS, BY TYPE, 1930-45

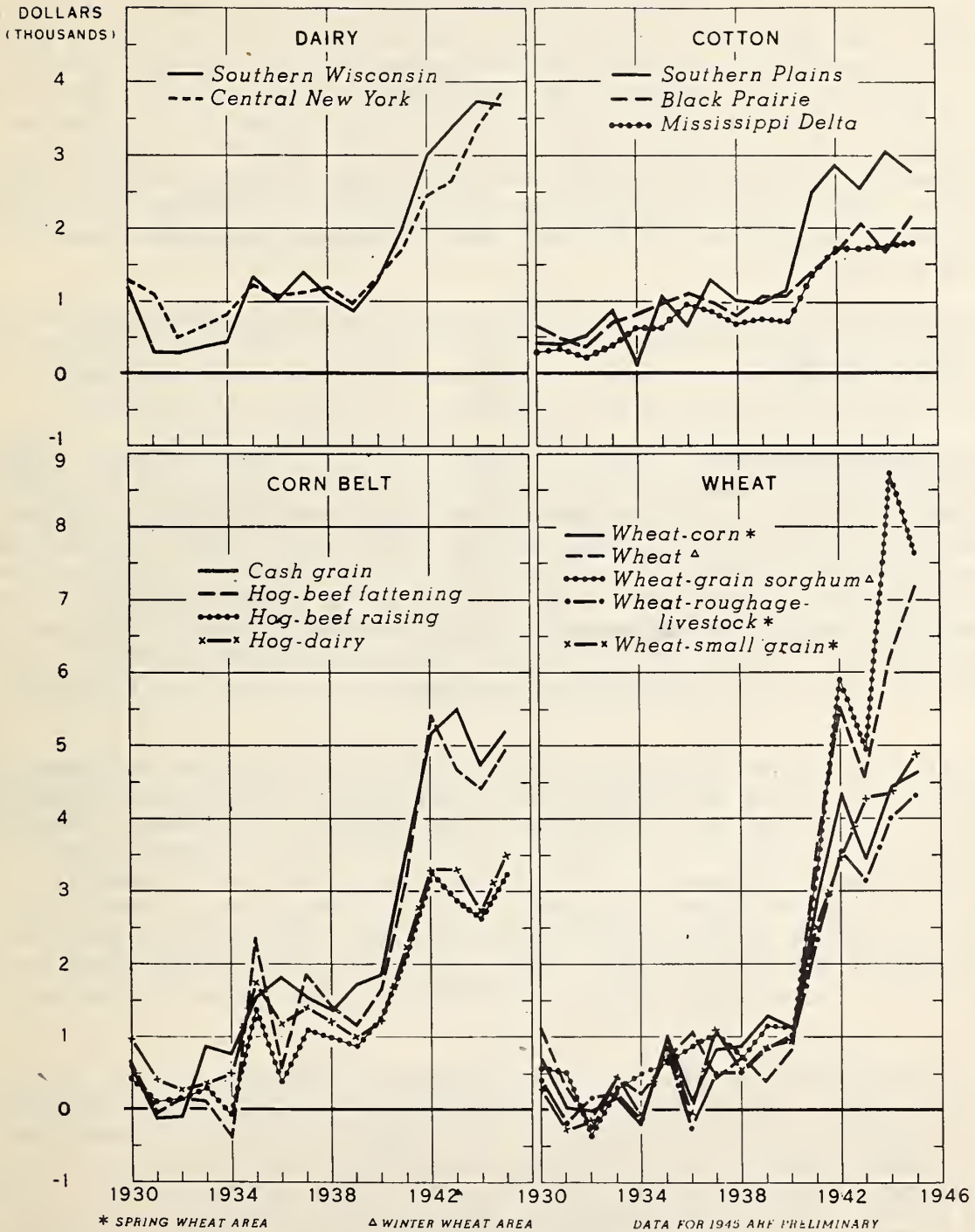


Figure 2.- Annual earnings of farm families follow the same general pattern regardless of the type of farm. Farmers have money to spend when business is good, employment is high, and factory pay rolls are large. But they are poor customers when city workers are unemployed and cut down their purchases of farm products.

The Price-Cost Side

Prices and weather. These are a major concern of farmers everywhere. Weather they can't do much about. So farm people worry about the weather and try to do something about prices as a means of improving their lot. And with good reason, as illustrated in figure 3. Farm-product prices are highly responsive to changes in general economic conditions. Prices paid by farmers, on the other hand, are much more stable even when wages paid to hired labor are included, as they are in these index series. Consequently, the ups and downs in prices received are very largely reflected in net farm income. These facts were significantly recognized when parity was first defined in terms of prices which would give farm products a purchasing power equivalent to that in the base period. Even though economic equality is a matter of income, to most people parity prices still seem the chief element of the parity concept. Parity prices calculated in terms of relative changes in the indexes of United States average prices received and paid by farmers from their respective 1910-14 average levels.

Where and how to stabilize farm prices as war and relief needs taper off are two of the most hotly debated issues of the day. Some hold to existing parity price formulas. Others contend that for many commodities these formulas have little relationship to reality at present, and even less to our goals of the future.

Price indexes reflect only changes in price per unit bought or sold. They can make no allowance for changes in quantities. Yet very considerable changes have occurred on both the income and the expense sides, even during the last 15 years. Production per farm has followed a steady upward trend in most areas. By adopting more efficient production methods farmers generally have been able to reduce substantially the quantity of cost goods required per unit of product marketed. These gains have not been equally shared, however, by producers of all kinds of products or on all types of farms. From these differences stem the inequities inherent in any price policy based on national price-index relationships or on a fixed historical base.

Take the index of operating expense $\frac{2}{}$ per unit of production in figure 4 on the other hand. It contains exactly the same items as does the index of prices paid in figure 3. But this operating-expense index measures the combined effect of changes in prices and quantities of cost goods used and in the volume of production obtained by their use. Consequently it varies much more from year to year and between types of farms than does the index of prices and wages paid. The annual variations are largely traceable to fluctuations in crop yields. Differences between types of farms particularly over a period of years reflect differences in the rate of improvement in production efficiency and in the composition of production expense.

To those who prefer to think in terms of margins of profit or loss, figure 5 should be of interest. Here is shown how farm income is divided between operating expense and profit or net return to land and the family's labor. The shaded area represents the part of each dollar of income received by the operator that is left for him to pay rent, interest, debts, and his family's cash living expenses. Annual net earnings of families on these family-operated farms are far less comparable than these "margins" would suggest. Cotton farmers operating family size farms in the Mississippi Delta just don't handle as many dollars in a year as do wheat growers in the Great Plains.

$\frac{2}{}$ Cash farm expenses plus depreciation of power, machinery, and equipment and farm buildings, that is, all items used in production except land and family labor (including operator).

PRICES RECEIVED, AND PRICES AND WAGES PAID
 TYPICAL FAMILY-OPERATED FARMS, BY TYPE, 1930-45
 INDEX NUMBERS (1930-44=100)

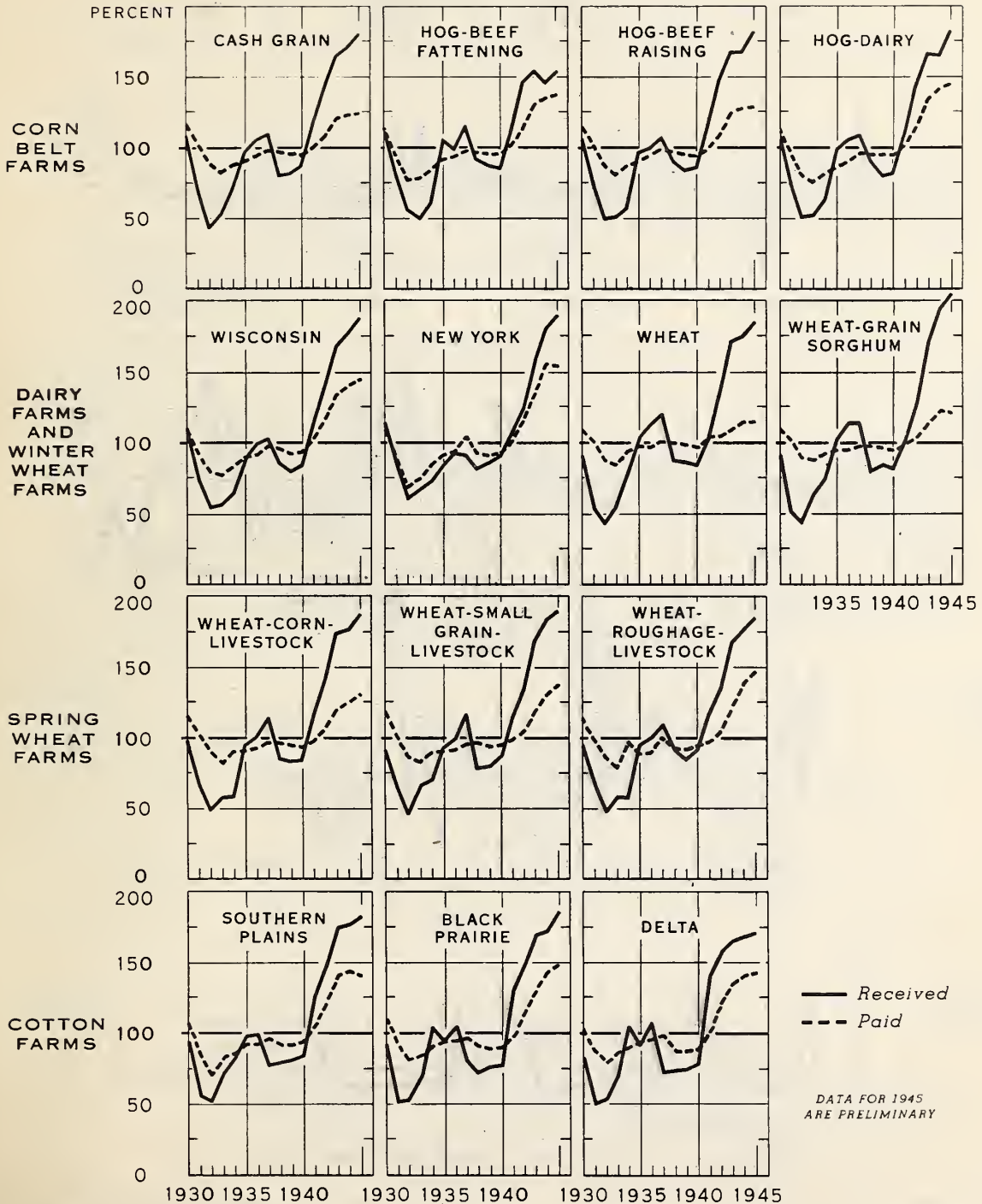


Figure 3.- Farm-product prices are highly responsive to changes in general economic conditions. Prices paid by farmers, on the other hand, are much more stable even when wages paid hired labor are included. Price indexes reflect only changes in price per unit bought or sold. They cannot show the effect on farmers earnings of large and small crops nor the longer run gains in production efficiency.

OPERATING EXPENSE PER UNIT OF PRODUCTION
TYPICAL FAMILY-OPERATED FARMS, BY TYPE, 1930-45
INDEX NUMBERS (1930-44=100)

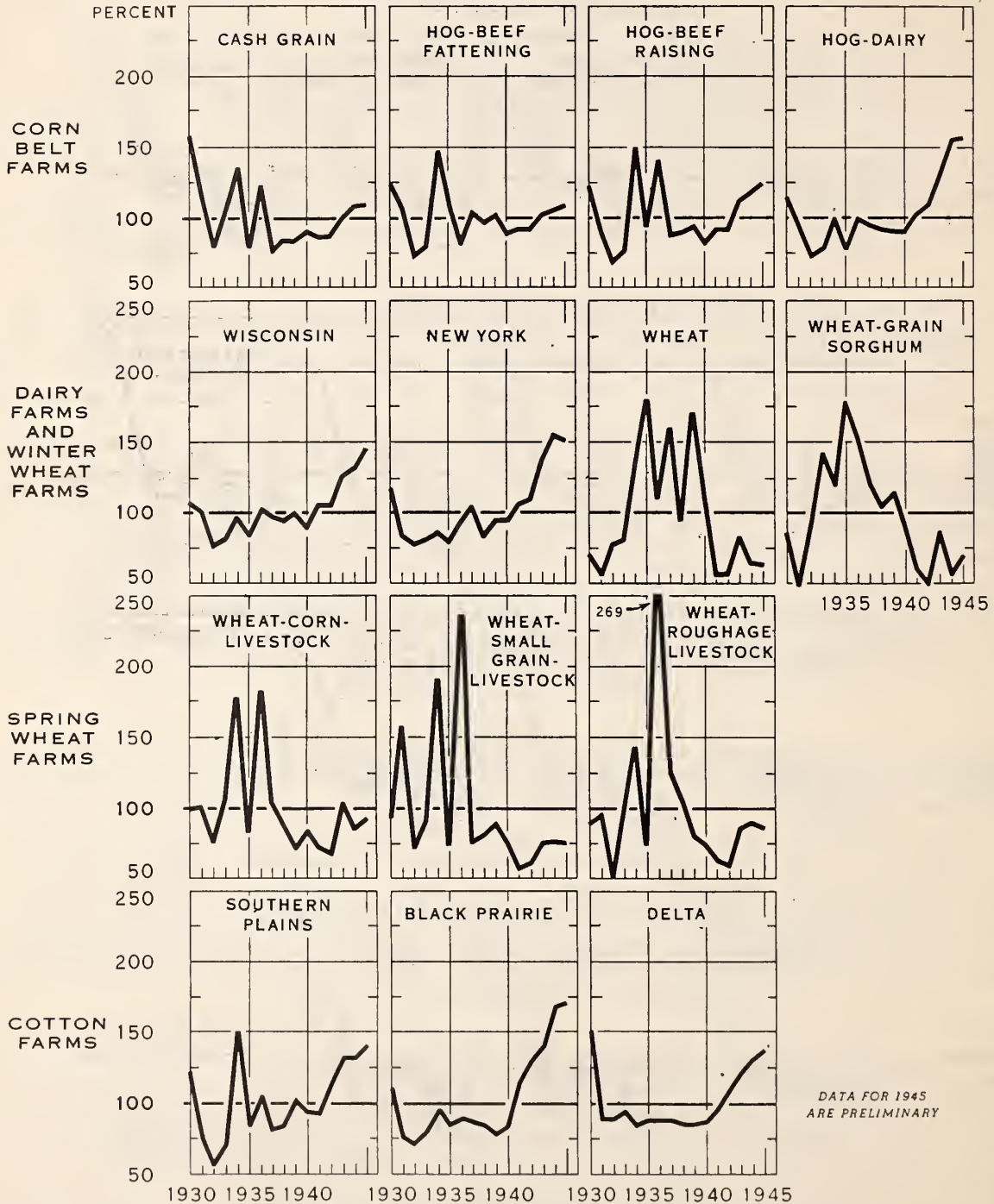


Figure 4.- Unlike the index of prices and wages paid, this index measures the combined effect of changes in prices and quantities of cost goods used, and in the volume of production obtained by their use. It consequently varies much more from year to year and between types of farms than does the prices-paid index. Annual variations are traceable largely to fluctuations in crop yields. Differences in the rate of improvement in production efficiency and in the composition of production expenses account for the long-run differences between types of farms.

OPERATING MARGINS

OPERATING EXPENSE PER DOLLAR OF GROSS FARM INCOME,
TYPICAL FAMILY-OPERATED FARMS, BY TYPE, 1930-45

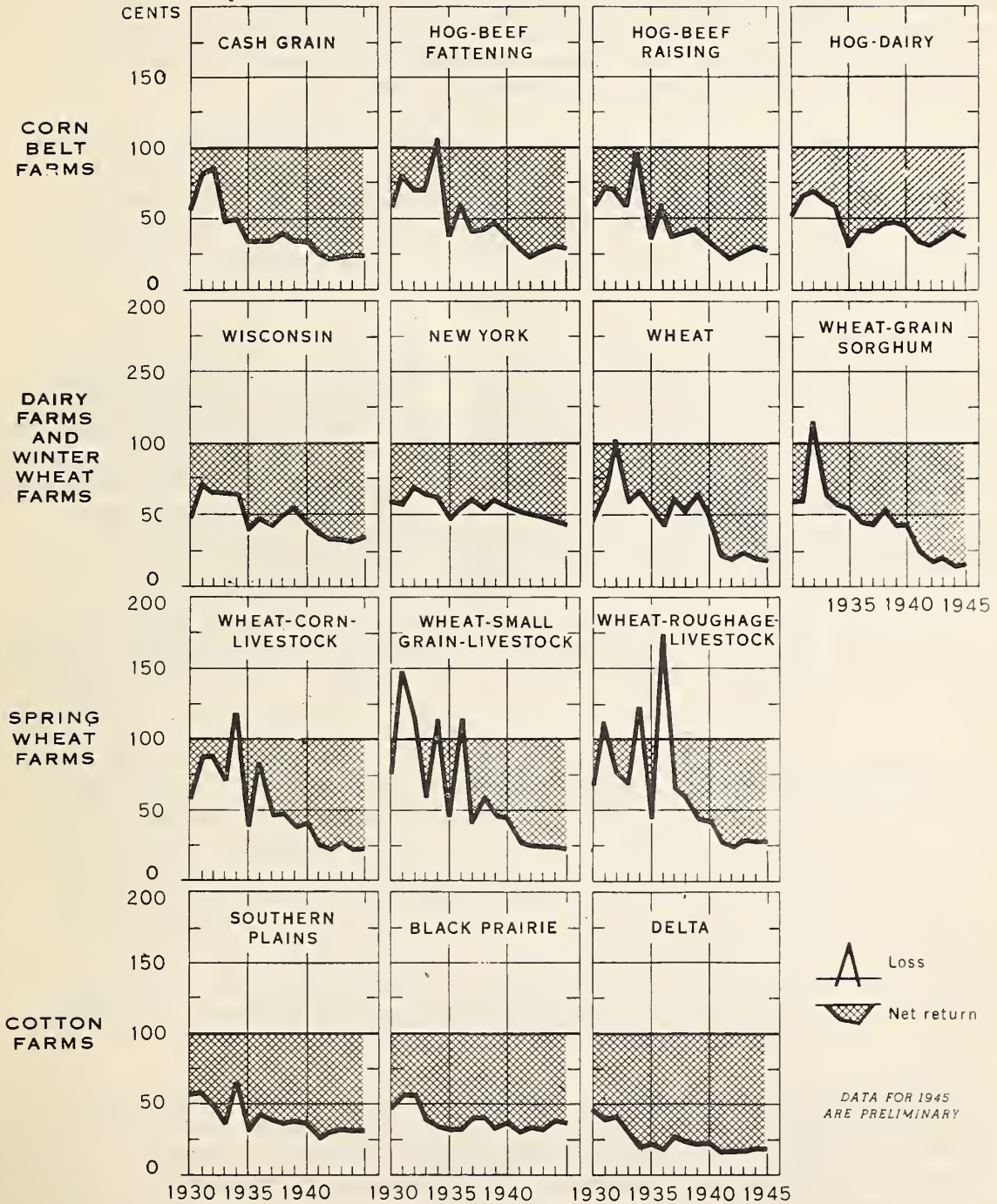


Figure 5.- Low production and low farm-product prices both cut into the normal margin of return per unit above out-of-pocket costs as total dollar operating expenses do not vary much from year to year. The shaded area is the part of each dollar received by the operator that is left for him to pay rent, interest, debts, and his family's cash living expenses.

The Production Side

To most farmers increased farm production means lower unit costs and higher annual earnings. This because most family-operated farms have some unused productive capacity. Sometimes it is land but more often labor--labor used at less than maximum efficiency for want of the additional land, machinery, or livestock needed to balance resource use. Increased production obtained by utilizing this wasted capacity has a lower per unit cost than did the smaller quantity that had to bear the same total overhead costs.

Each farmer then serves his own best interests and those of consumers at the same time by producing all he can of the things people need. But in this dollar-and-cents economy of ours, people's needs for food and clothing are not often identical with the quantity that can be marketed at a fair price. So we find the national problem of "overproduction" recurring whenever effective demand fails to match real needs.

The history of agricultural production in the years since 1930 is a panorama of farmers' efforts to increase their output and lower their costs in a setting of varied and rapidly changing economic conditions. Their success in steadily increasing total production despite acreage controls, marketing quotas, and other programs (fig. 6) further complicates the price and production problems now plaguing agricultural leaders. "What level of agricultural production shall we aim for?" The answer is always the same: "At what price?" Nor is this price-production dilemma simplified by adding in the virtual certainty that the war-inspired upswing in production is not readily reversible.

How have these typical farm operators been able to increase their production 30 to 50 percent over the past 16 years? What do the changes mean in terms of future production, farmer's income, prices to consumers? Here are a few of the important causes and effects.

(1) Farm size has steadily increased (fig. 7). Increasing the size of the farm is usually the quickest and cheapest way for a family to increase its output. But only when people are leaving farms in considerable numbers or when new farm land is developed are there opportunities for widespread expansion. Many of the family-operated farms in any area are too small to permit the most efficient use of machinery and family labor. Increased scale of operation, therefore, usually results in lower unit production costs and a higher net income to the operator. Larger production per farm obtained by expanding the acreage usually does not increase the national production of farm products. Nonfarm production and national income are both increased, however, if those persons who leave the farms find remunerative employment.

(2) Mechanization has progressed rapidly (fig. 7). This counterpart of larger scale of operation is one of the essentials of increased productivity of labor. Replacing workstock with tractors has enabled farmers everywhere to take advantage of other labor-saving equipment. More timely performance of farming operations has also improved yields and reduced crop losses. In 1930 these 14 typical farms represented almost as many different stages of mechanization. So far as tractors are concerned, much of this difference has since been eliminated. Wide variations still exist, however, in the total quantity of machinery and equipment used on these several types of farms and in the extent to which hand labor has been replaced with machine methods.

PRODUCTION PER FARM
 TYPICAL FAMILY-OPERATED FARMS, BY TYPE, 1930-45
 INDEX NUMBERS (1930-44=100)

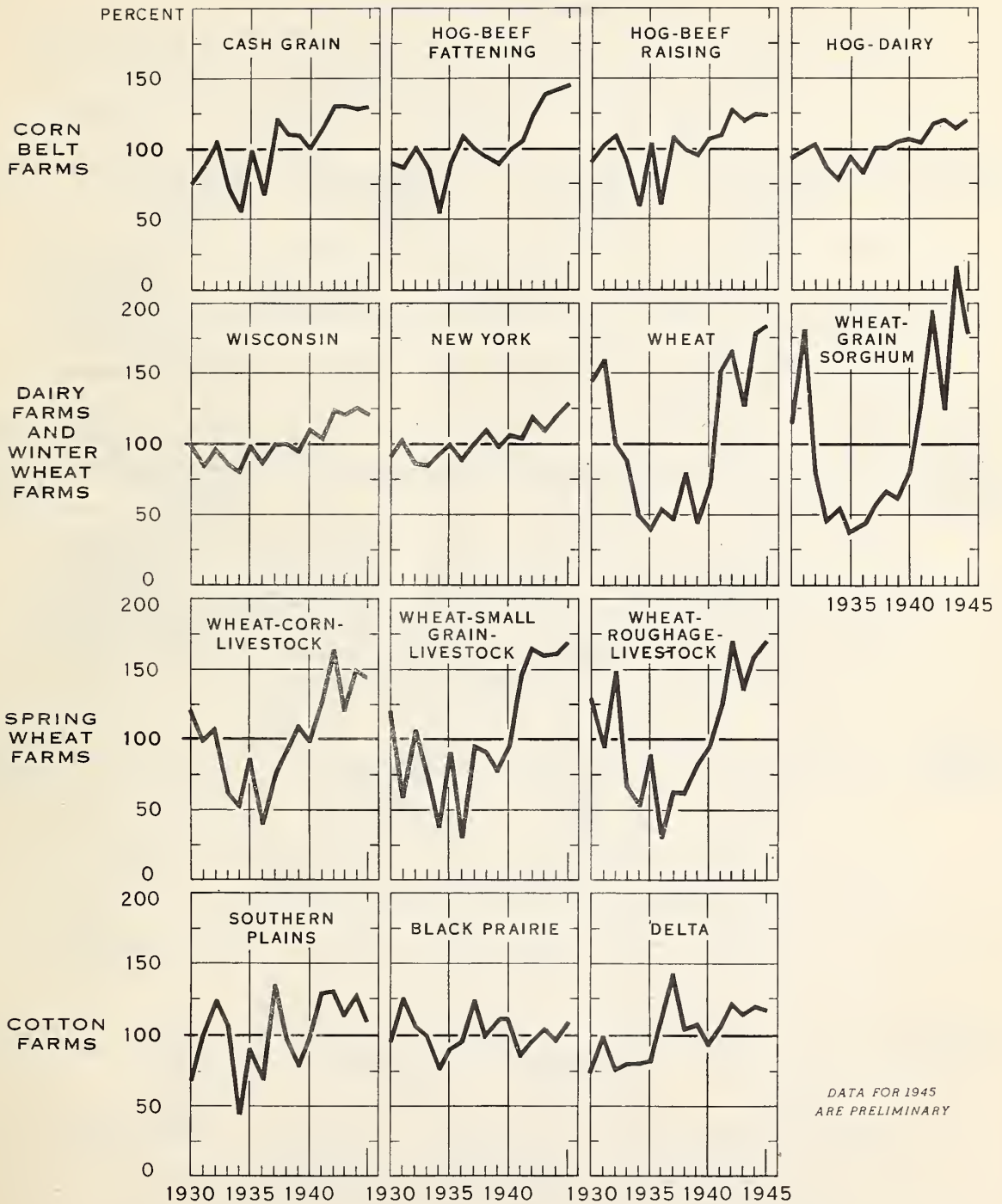


Figure 6.- These typical farm operators have increased their production 30 to 50 percent within the past 16 years. That production steadily increased during the 1930's despite acreage controls, marketing quotas, and other programs presents a real problem to those pondering the desirable future level of total agricultural production.

MECHANIZATION AND SIZE OF FARM

TOTAL ACRES AND QUANTITY OF POWER AND MACHINERY USED PER FARM, TYPICAL FAMILY-OPERATED FARMS, BY TYPE, 1930-45

INDEX NUMBERS (1930-44=100)

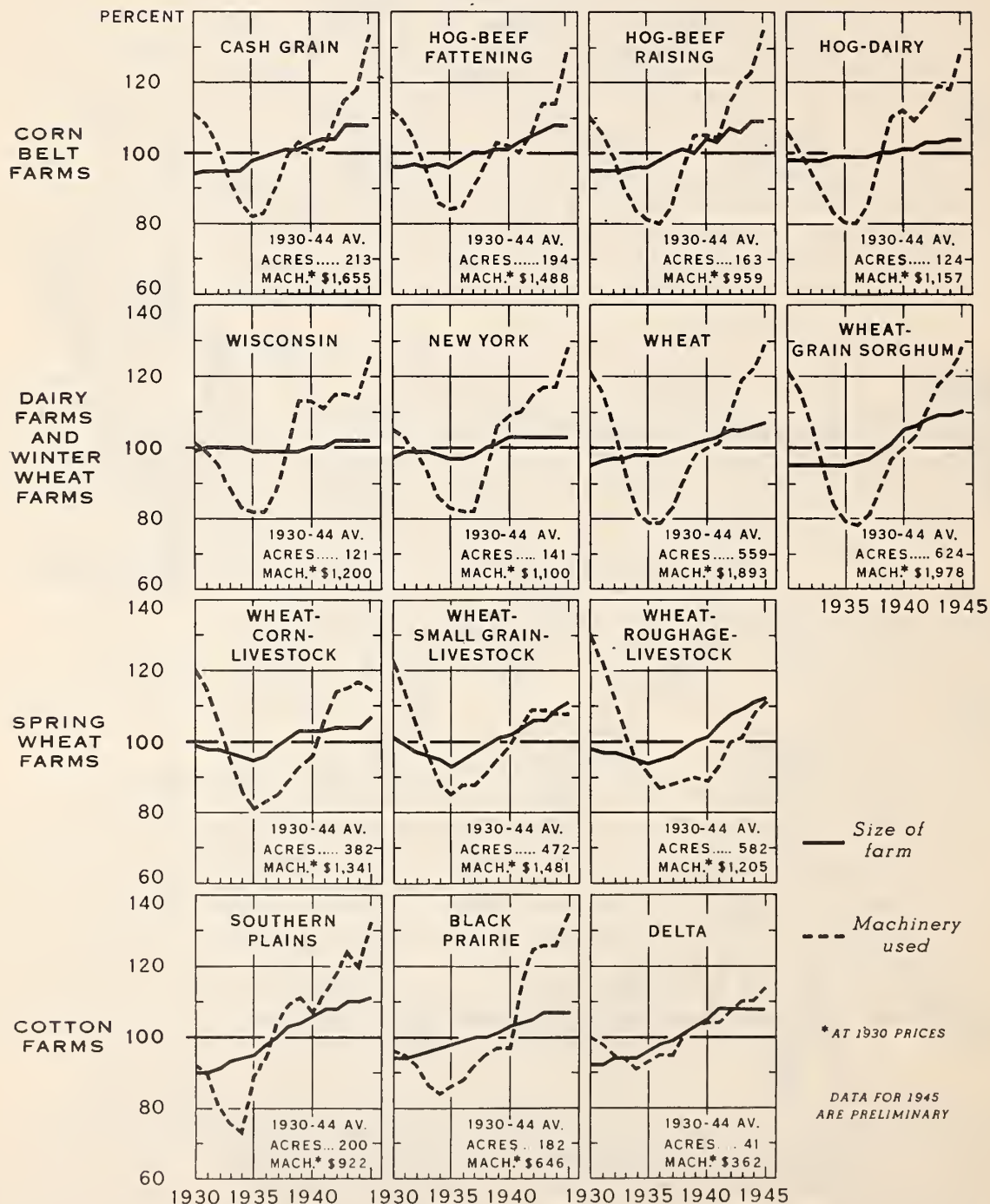


Figure 7.— Mechanization has been rapid since 1935, and this has sharply increased labor productivity. Farm size has steadily increased within the past 16 years. Expansion in scale of operation accounts for considerable of the increase in production per farm. Livestock and dairy farms usually expand by adding livestock rather than acres.

CROP YIELDS

COMBINED AVERAGE YIELDS OF MAJOR CROPS, TYPICAL FAMILY-OPERATED FARMS, BY TYPE, 1930-45

INDEX NUMBERS (1930-44=100)

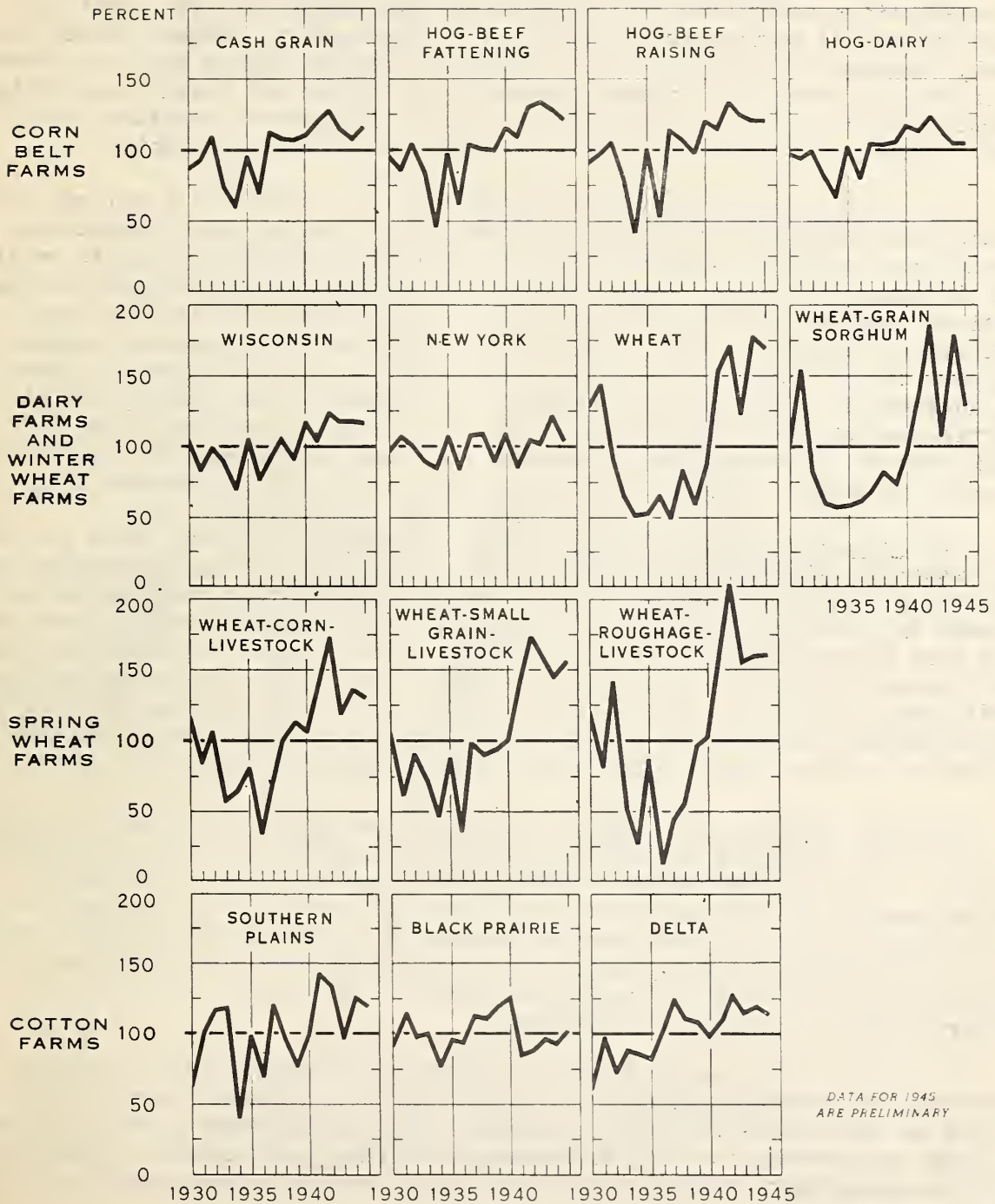


Figure 8.- Improved crop yields have contributed materially to the increase in production and output per family. Influences outlined in the text here brought this about. Yields are highly variable in some areas, relatively stable in others. They are particularly unpredictable throughout the semi-arid and Great Plains region.

(3) Crop yields have improved substantially (fig. 8). It is not easy to catalogue the several factors responsible for the substantial increases in crop yields obtained since 1930. Improved varieties, increased use of fertilizer and lime, land selection for important cash crops, improved production practices, soil conservation activities, and weather all have played a part. Their influence differs by periods and by sections of the country. Higher yields invariably increase the productivity of labor and usually reduce the unit costs. Part of the improvement in yields obtained by wider use and heavier application of fertilizer and lime would probably be lost if depression conditions should return. Increases from other causes, however, are mostly permanent.

(4) Labor productivity has increased (fig. 9). Production per man hour has increased generally over the past decade. But, unlike total production, gains in labor efficiency have not been so uniformly shared by families on all types of farms. Increases have been greatest on crop farms where most of the operations could be effectively mechanized. Improvement has been far less pronounced on dairy and cotton farms. Here hand-labor requirements comprise a large part of the total and an increase in total production brings an almost equal increase in total labor requirements. Complete mechanization of cotton production and harvest, however, bids fair to becoming a reality in the not distant future. Very material improvements in labor efficiency are in the offing for cotton producers, especially in areas that are adapted to machine methods.

(5) Production costs ^{3/} trend steadily downward (fig. 9). This is the really important thing for it profits producers nothing to reduce labor costs by substituting a greater machinery expense or fertilizer bill. Real gains have been made in production efficiency. Costs have been pushed steadily downward during this 16-year period. To those farmers who have made the reductions in costs it means higher net incomes. How these gains will be shared in the future depends upon the extent of competition within agriculture and upon the national policy regarding farm prices, or more correctly, upon the nature of the programs in effect at a given time to carry out the national price policy.

Economic equality for agriculture rests upon farmers' ability to produce the needed food and fiber at substantially lower costs--lower costs particularly in terms of the human resources involved. They must strive for the highest possible level of production efficiency consistent with maintaining soil resources. If our agricultural plant continues to operate at far less than maximum efficiency, it will be difficult for farm people to enjoy parity incomes and services. The breach between farm and city living standards may widen unless farmers match industry's gains in production efficiency.

The future holds great promise of advances in the efficiency of farm production, far surpassing those of the last decade. Farmers' earnings will mount as per unit costs continue to decline. And decline they surely will unless the trends responsible for this increasing efficiency are reversed, either by the excessive piling up of people on the land or by chronic underconsumption of farm products, or by both.

^{3/} Total cost per unit of production excluding price changes; that is, total quantity of cash cost items, machinery, buildings, land, and all labor used divided by total farm production.

PRODUCTION EFFICIENCY

PRODUCTION PER HOUR OF MAN LABOR AND COSTS* PER UNIT OF PRODUCTION, TYPICAL FAMILY-OPERATED FARMS, BY TYPE, 1930-45

INDEX NUMBERS (1930-44=100)

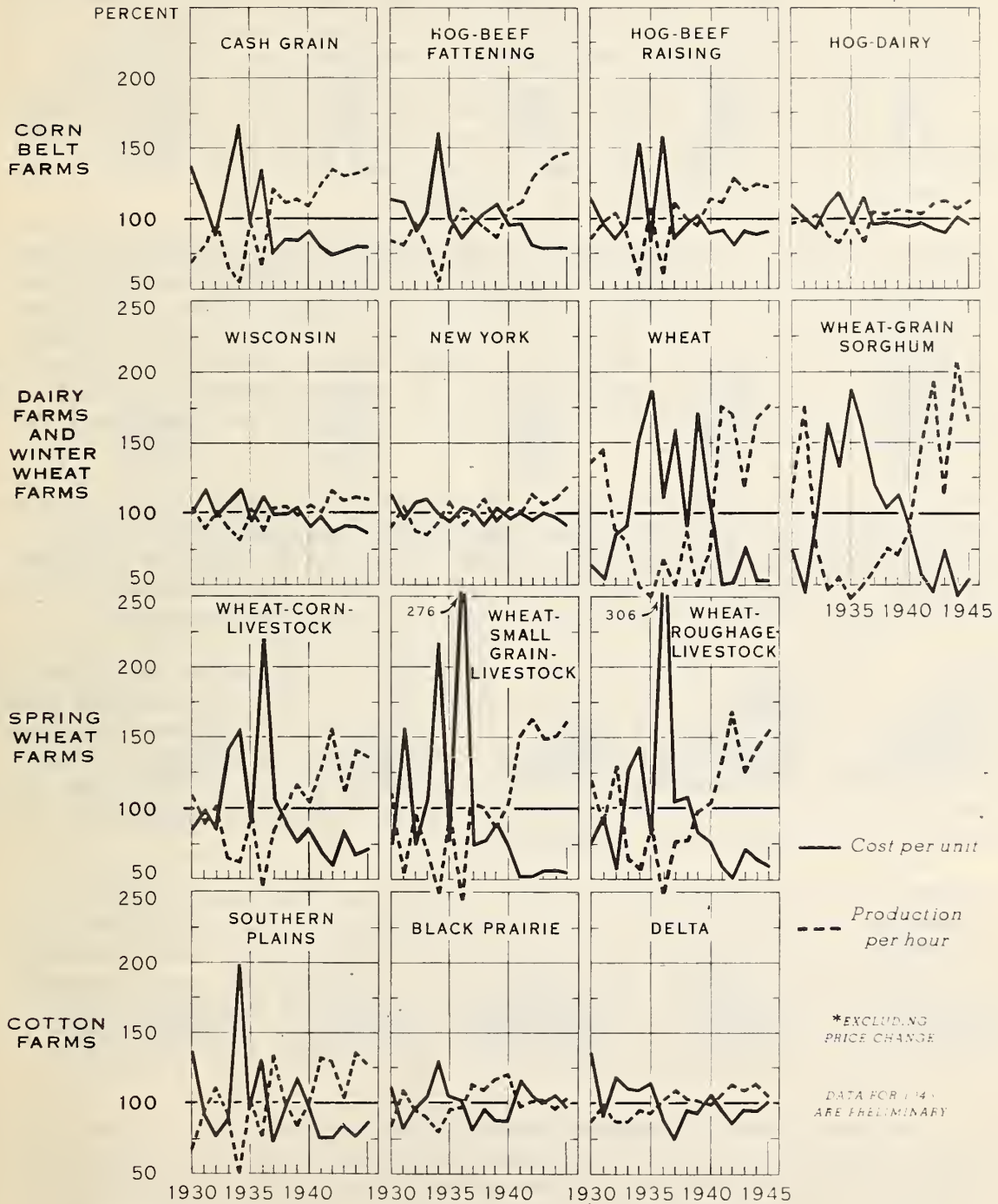


Figure 9.- Real gains have been made in production efficiency during the last decade. Labor productivity has increased generally and unit production costs have been pushed steadily downward. But these gains have not been shared uniformly by families on all types of farms. Increased efficiency is essential to improvement in the material standard of farm living.

Why Some Farmers Have Higher Earnings Than Others

Ask the man on the street why farmers' incomes differ so much and the chances are that his answer will be in terms of big farms and small farms, rich land and poor land, hard workers and lazy men, cotton growers and cattle ranchers, good farmers and poor farmers, owners, tenants, and sharecroppers. The list will vary depending upon who the man is and what part of the country he lives in. Press him closely, though, and these and many other apparent differences between farms and farmers will find their place among his opinions on why some farmers enjoy high incomes, nice houses, and good cars while others constantly hover on the borderline of bare subsistence.

Farmers' economic ills have usually been diagnosed and treated in terms of such symptoms as these. Symptoms of improper balance between the three basic agricultural resources: land, labor, and capital. Too much labor—too little capital. Farmers characteristically have too little land, too little livestock, too little machinery to make the best use of their labor. Capital has always been scarce to them and they use it sparingly. So, for want of adequate capital, much of the total labor used in agricultural production is either underemployed, or ineffectively employed, or both.

Most farmers work their own farms. Their earnings depend primarily upon how much they produce per hour or per day they work. And labor productivity varies directly with the amount of capital used. Quality of land and livestock is more important in this regard than acres and numbers. The poorer the land the lower its value and the smaller quantity of capital each acre represents.

Capital invested in machinery even more directly influences the output and earnings of farm labor. Hand labor is high-cost labor. If its product is scarce, the price received will cover high costs. If it is plentiful, farmer-producers will in effect pay a part of the labor costs by accepting low returns and low living standards. In particularly unfavorable economic position are those farmers who produce crops with hand-and-horse methods in direct competition with others who use tractors and power equipment.

A great many families depend entirely upon farms that are too small to provide full-time employment for all the working members. Underemployment on farms has exactly the same effect on individual earnings and national income as does periodic unemployment among industrial workers. We always become alarmed when urban unemployment becomes widespread but are inclined quietly to tolerate chronic underemployment of farm people which results in even greater annual losses in national production.

Man's progress toward higher material living standards has always accompanied the improvement in the quantity and quality of tools with which he works. In our present-day American economy these tools represent capital. So, a farmer's earnings are determined more than anything else by the amount of capital he commands. The Simon Bolivar of American farmers will be the man who devises an acceptable scheme for supplying the number of families needed to produce farm products with sufficient capital to utilize their labor fully and effectively.

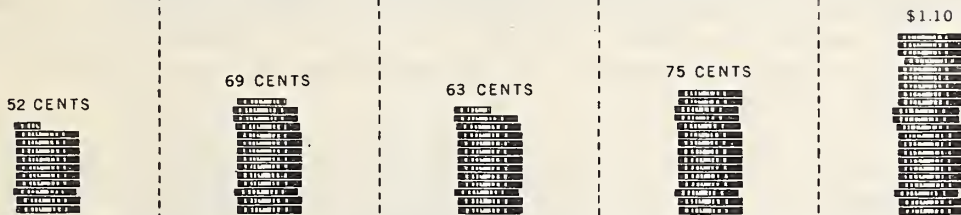
WHY FARMERS' INCOMES DIFFER

FARMERS' EARNINGS DEPEND LARGELY UPON THE



Operator's net farm income, typical family-operated farms, 1930-45 average

..... PRODUCTIVENESS OF THEIR LABOR, WHICH IS DETERMINED PRIMARILY BY THE



Value of production per hour of man labor used, typical family-operated farms, 1930-45 average

..... AMOUNT OF CAPITAL THEY USE, ESPECIALLY BY THE



Total investment in land, buildings, machinery, and livestock, typical family-operated farms, 1930-45 average

..... AMOUNT OF MACHINERY AND EQUIPMENT THEY OWN



Value of machinery and equipment used, typical family-operated farms, 1930-45 average

COTTON
FARMS

SPRING WHEAT
FARMS

DAIRY
FARMS

CORN BELT
FARMS

WINTER WHEAT
FARMS

Figure 10.- Differences in average earnings between large groups of farmers can be traced to the relative balance in their use of resources—land, labor and capital. Farmers as a rule are long on labor; short on land and capital.

Are Farmers Progressing Toward Owner-Operatorship?

Owner-operatorship of the family-sized farm long has occupied a high place among ideals in the United States. Encouragement of progress toward this goal has been an integral part of our national farm policy since the days of Thomas Jefferson, augmented periodically by action programs of one kind or another. The family-sized farm has persisted as the dominant feature of our agriculture. Owner-operatorship, however, remains a far-distant goal for most operators in most areas. Far-distant, that is, considering the trends of the past two decades and the high percentage of land in many sections now owned by persons other than the farm operator (fig. 11).

No, farmers typically are not progressing toward owner-operatorship. And this is the root of our national "land tenure problem." Failure to own the land they operate has been assigned responsibility for more of farmers' economic and social ills than any other single factor. "He's poor because he is a tenant. His house is shabby--he's a tenant. He is unstable, he mines the soil, he is insecure for he is a tenant."

But is tenancy itself a true cause or merely the outward evidence of more basic maladjustments in resource use? How much of the tenancy problem stems directly from tenant operation of farms that are too small to support a family--even if no rent were paid? Would tenants be willing to operate and pay rent on poor farms with run-down buildings if they had better opportunities? If full employment were an accomplished fact? If they knew where to find jobs and had some training to fill them? Are farmers who rent land unstable because they like to move about or because they always hope to improve their unsatisfactory circumstances? Are not excessive rents and insecurity of tenure the net result of too many people competing with one another for a limited amount of land? Wouldn't landlords provide more acceptable houses if otherwise they could not get tenants? So we are back to the same old farm problem--too many people on too little land, complicated by a tenure system under which land in any size parcel has a sale value and commands rent irrespective of the unit's ability to provide a so-called American standard of living for a farm family.

A great many farmers prefer to remain tenants even after they have accumulated some savings. They find they can operate on a larger scale and get higher earnings by investing their capital in machinery and livestock rather than in land. Farmers generally have taken advantage of their high incomes during the war to reduce their mortgage debts. These reductions have been less rapid, however, than the increased equity indicated in figure 11 would imply, for land values have advanced substantially since 1941.

Progress toward debt-free owner-operatorship on a national scale necessitates a fairly rapid accumulation of savings from farming. And if our whole economy is to remain stable and is to prosper, these savings must not be made at the expense of current spending for at least a minimum adequate living standard. Do the net annual earnings of operators of these 14 types of farms (figs. 2 and 10) give reason to expect rapid progress toward this avowed goal?

FARM OWNERSHIP

EQUITY OF FARM OPERATORS IN THEIR FARMS, TYPICAL FAMILY-OPERATED FARMS, BY TYPE, 1930-45

(PERCENT OF VALUE OF LAND AND BUILDINGS)

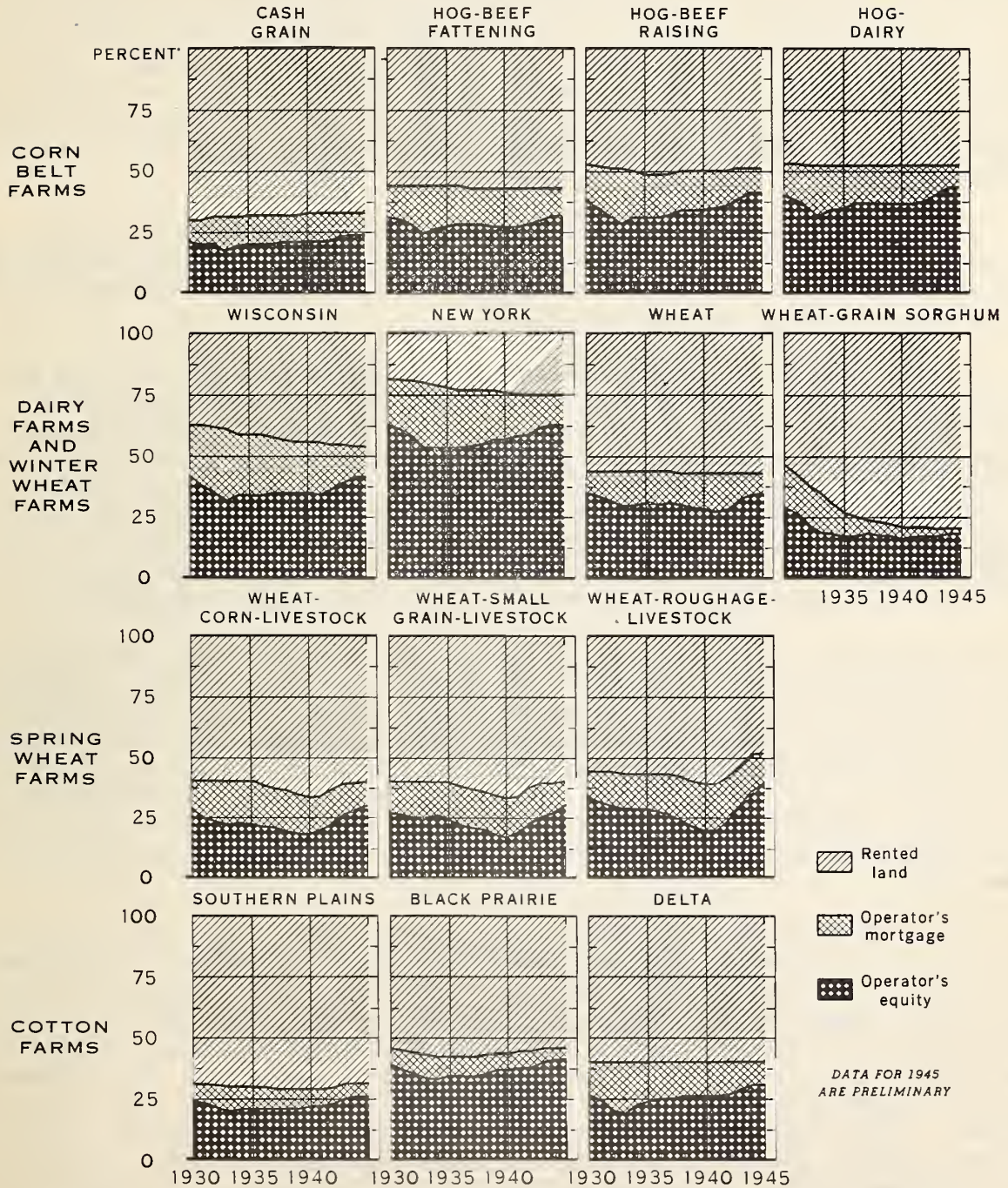


Figure 11.- If debt-free owner-operatorship is their goal, operators of these 14 types of farms have made little progress toward it during the last 16 years. Changes in the operator's equity in owned land result both from changes in land values and from increases or decreases in the total mortgage debt. The division between rented and owned land, however, is not affected by shifts in land values.

How Much of Gross Farm Income is Net?

How many times in the last quarter century has this question been asked by legislators, administrators, and others seeking a quick basis for converting gross farm income into a measure of the welfare of farm people? And how often has the reply been "Oh, about half," or some other fraction. At first these approximate ratios of net to gross farm income may have been intended to apply only to national estimates, or to a particular level of gross income, or to some other specified set of conditions. Through repeated use, however, such rule-of-thumb conversion factors have become more or less standards for any and all sorts of situations.

Several recent proposals for action programs are based on this same principle. They usually do not specify a percentage but indirectly assume that \$1,000 gross income means the same net income to a dairyman, a corn-hog farmer, a cotton farmer, and so on down the list.

A quick look at figure 12, however, is enough to make one question how equitable any program would be when based on assumed uniform and unvarying relationships between gross income and farm-family earnings. Dairy farmers in New York buy most of their feed and hire considerable labor. Operating expenses naturally take a higher percentage of their gross income than of the cotton farmer in the Mississippi Delta who buys no feed, hires little labor, and uses horse-drawn equipment. The very considerable differences in the usual proportion of gross income on these several typical farms going to the operator and family as earnings result from such characteristic differences in their business operations.

Even greater are the variations between years or parts of this 16-year period on almost any one of these typical farms. When gross income is low, net income is even lower for then operating expenses, and rent and interest take a larger share of the total. Farm-product prices respond very quickly to changes in economic conditions whereas prices of machinery, gasoline, millfeed and labor rise and fall less rapidly. That farmers really feel the pinch on the downswing is quite evident from this illustration. Of course, drought-reduced production was partly responsible for low farm income in many parts of the country during the middle 1930's.

Some will probably be surprised to learn how small a percentage rent and interest take of the gross income from the average farm. Others may be shocked at the share of farmer's income that goes to outside investors. Whether too big, too small, or just right, this slice of gross farm income is a combination of rent paid on rented land and interest paid on the mortgage debt on the owned land. To the tenant farmer, rent is a far more important item of expense than this combination indicates. Rent is largely paid on a share basis in areas where renting is prevalent. Since the value of share rent fluctuates with farm prices, the landlords and mortgage holders together get a smaller percentage of a low gross income for any particular type of farm than they do of a high-level gross income. Rental shares, however, have become rigidly fixed by custom and for the individual tenant farmer they are often difficult to live with.

How much of gross farm income is net? First we must know: On what kind of farm? In what part of the country? At what level of prices and income?

INCOME AND EXPENSE

OPERATING EXPENSE, RENT AND INTEREST PAID, AND OPERATOR'S NET FARM INCOME,
TYPICAL FAMILY-OPERATED FARMS, BY TYPE, 1930-45

(PERCENT OF GROSS FARM INCOME)

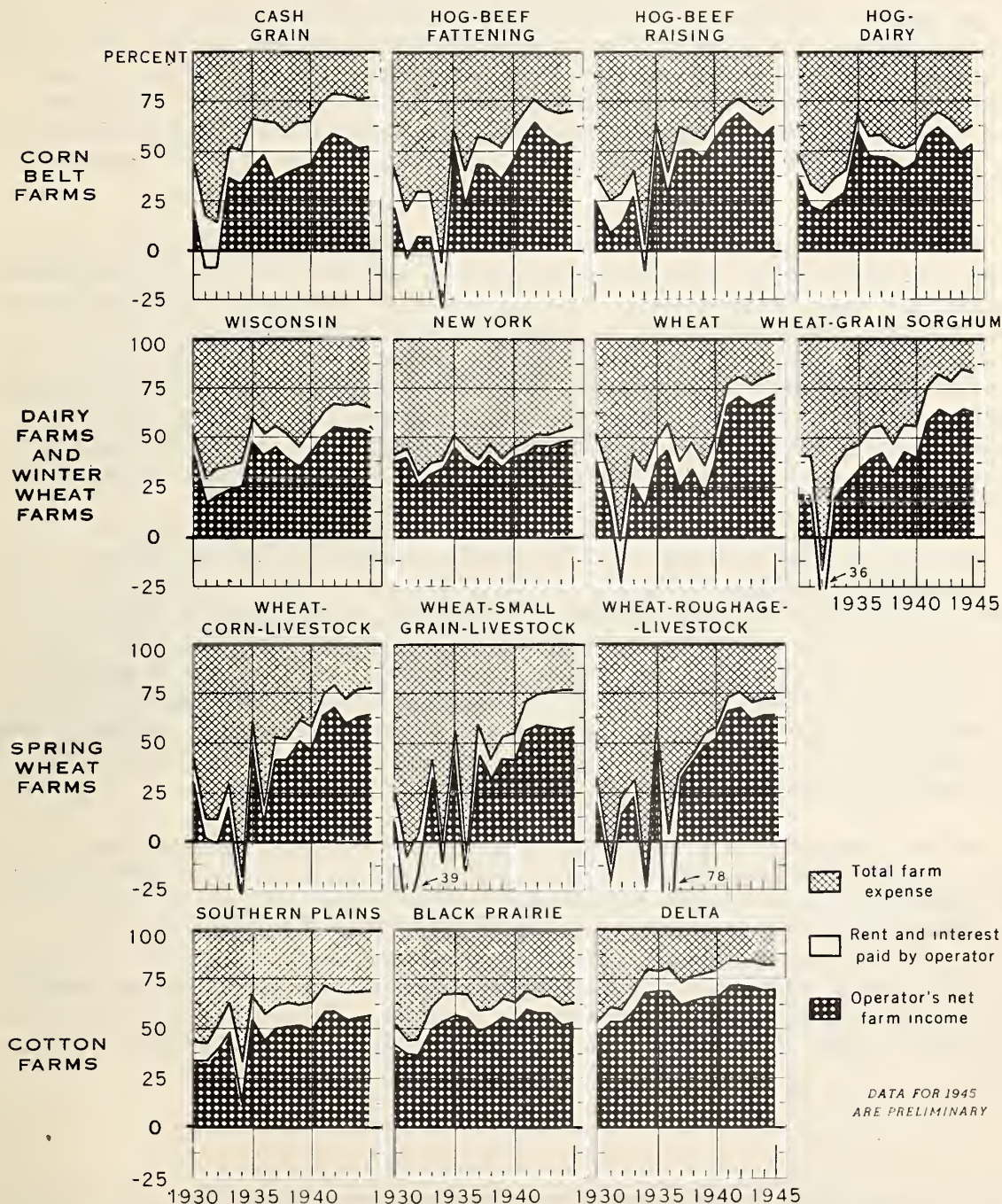


Figure 12.— Farmers really feel the pinch when farm prices are falling, for the prices of things they have to buy don't fall so fast, and operating expenses take a larger-than-usual share of the total income. Rent is commonly paid on a share basis in areas where renting is important, so the percentage of gross income going to landlords and mortgage holders varies directly with gross farm income.

Land Boom Ahead?

"Farm real estate values continued to move upward ... for the country as a whole ... a rise of 11 percent from November 1944 ... to a level 60 percent above 1935-39 ... average values are now less than one-fourth below the 1920 inflation peak." So reads a December 1945 release on developments in the farm real estate market. For any other date since war-inspired demands and production carried farm income to record peaks, only the figures need be changed--the story remains the same. "Here we go again" has been the oft-repeated warning of many observers who are mindful of the conditions that followed World War I. They point to rapidly rising land values as sure signs of imminent inflation.

But, others argue, land values were subnormal in 1935-39. And after all, see how little they have increased during the war in spite of exceptionally high farm returns. Overlooked in this latter appraisal are the very strong forces that held land purchases in check during the war. Present operators could not get the machinery or the labor to expand their farming operations. Few owners of good land have been willing to sell, and fewer farmers retired than usual. Persons who buy land only for investment have found tenant operators scarce, especially for poor land. Reverse all of these conditions with the cessation of war activities, and the situation is very materially altered.

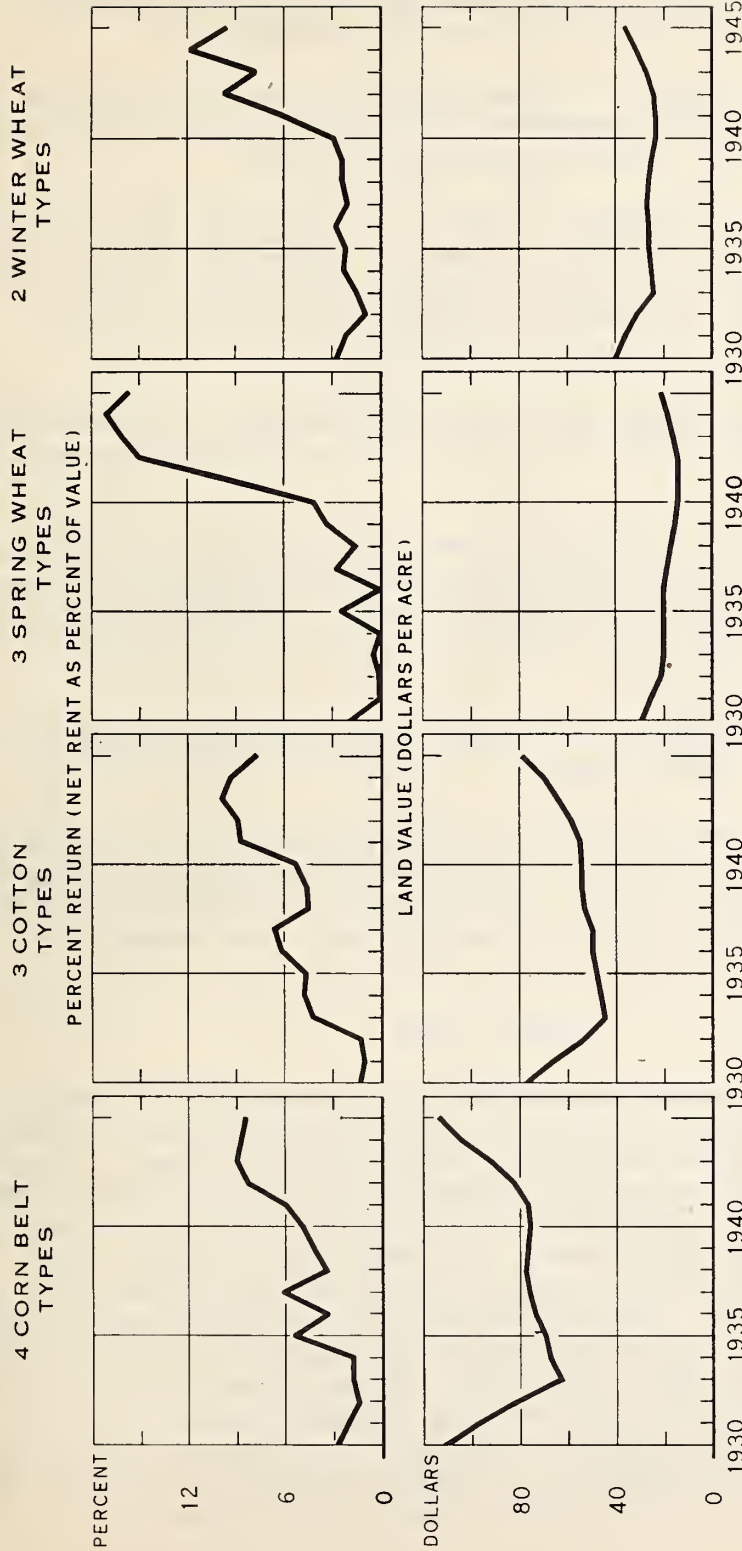
History can be reviewed only by looking backward, but it has an uncanny way of repeating itself. Particularly when the same set of conditions prevail and the only variable is human behavior. The marked similarity of trends in farm prices and land values during World Wars I and II has been used innumerable times during the last 5 years to support particular predictions of what is going to happen--unless. This line of reasoning makes a land market "boom and bust" inevitable, for the present generation has so far reacted to high farm product prices in about the same way as their fathers did; but perhaps a little more cautiously.

As an illustration of what has happened to returns on investment in farm real estate and land values since 1930 take figure 13. ^{4/} Although land values follow the path of net rentals they never go as high or as low as the cyclical variations in net rent would indicate. They are, however, too responsive to short-run changes in farm returns to lend the desired stability to an agricultural economy. Of particular significance is the characteristic 2 to 3-year lag of land values behind net rentals. It is obviously a mistake to think the danger of inflation in land values passes with the peak in farm returns.

^{4/} Being interested in comparisons of net rentals and land values in fairly broad areas, simple averages of the respective items for the individual typical farm situations in each production region were taken for purpose of illustration. Such combinations distort the level of land values in some cases, but the changes and relationships shown here are reasonably applicable to each of the component types.

NET RENT AND LAND VALUES

NET RENT AS PERCENT OF CURRENT VALUE OF LAND AND BUILDINGS AND ESTIMATED VALUE PER ACRE OF FARM REAL ESTATE, TYPICAL FAMILY-OPERATED FARMS, BY TYPE, 1930-45



TYPE OF FARM	ESTIMATED VALUE OF LAND AND BUILDINGS PER ACRE (DOLLARS)				VALUE PER ACRE BASED ON CAPITALIZED NET RENT* (DOLLARS)			
	1933	1937	1940	1945	1935-39	1937-41	1930-45	1942-45
4 CORN BELT TYPES	\$63	\$76	\$76	\$114	\$78	\$88	\$97	\$194
3 COTTON TYPES	44	50	54	79	63	73	74	140
3 SPRING WHEAT TYPES	20	19	14	21	9	16	23	69
2 WINTER WHEAT TYPES	24	27	23	36	13	17	27	63

* NET RENT PER ACRE (GROSS RENTAL VALUE LESS TAXES AND BUILDING DEPRECIATION) CAPITALIZED AT CURRENT MORTGAGE INTEREST RATE

Figure 15.-- Land values usually lag 2 to 3 years behind net rentals. Prices of farm real estate rose substantially during the war but not nearly so fast as rental values. Returns to investment in farm land have been at a very attractive level for more than 3 years. Land values are already approaching a speculative level in many places. Is another land boom ahead?

The following is by no means a prediction. It is rather an "It Can Happen Here" listing of some economic and social forces that are pushing us in the direction of a boom in land prices:

Net rental values are exceedingly high relative to current land value. Returns on land investment have been at high levels for the last 4 years and have been increasing since 1940.

Farm product prices will remain at relatively high levels for at least 2 more years, because of demands for relief in 1946, and Steagall commitments to support prices at near-parity levels at least through 1948. Prospects of sustained high returns will further increase the optimism of purchasers.

Machinery and labor will become increasingly available and will stimulate land buying by present operators for enlargement of farms.

Unemployed war workers and returning servicemen will increase the competition for farms—bid up land prices—encourage purchases by outside investors seeking tenant operators. Even if only temporarily unemployed, many will get anxious and seek security in a back-to-the-land movement.

Money is plentiful. Mortgage credit is easily available at low rates for buying farm land.

Nothing so completely wrecks the economic life of a farming community as the aftermath of a full-fledged, unhampered, Grade-A boom in land prices. At this crucial time for decision we may well pause and ponder the question "Is another land boom ahead?"

There's More

This brief summary has hit only the highlights of a rather thoroughgoing analysis of all phases of the organization, operation, adjustments, and income on typical family-operated farms. A companion report "Typical Family-Operated Farms, 1930-45, Adjustments, Costs, and Returns" contains a wealth of statistical detail on the same 14 types of farms illustrated here. Some subsequent releases will further these analyses along subject-matter lines—mechanization, prices and costs, etc. Gradually others will present general data on different types of farms as the various studies now in process are completed. These latter reports will include comparisons of incomes, expenses, production costs and various related factors for several sizes of farms within each type studied. It is planned to keep all series current, the information for each succeeding year being added as soon after the end of the year as facilities permit.

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